**Longest Increasing Subsequence.**

**class LIS {**

**static int max\_ref;**

**static int \_lis(int arr[], int n)**

**{**

**if (n == 1)**

**return 1;**

**int res, max\_ending\_here = 1;**

**for (int i = 1; i < n; i++) {**

**res = \_lis(arr, i);**

**if (arr[i - 1] < arr[n - 1]**

**&& res + 1 > max\_ending\_here)**

**max\_ending\_here = res + 1;**

**}**

**if (max\_ref < max\_ending\_here)**

**max\_ref = max\_ending\_here;**

**return max\_ending\_here;**

**}**

**static int lis(int arr[], int n)**

**{**

**max\_ref = 1;**

**\_lis(arr, n);**

**// returns max**

**return max\_ref;**

**}**

**public static void main(String args[])**

**{**

**int arr[] = { 10, 22, 9, 33, 21, 50, 41, 60 };**

**int n = arr.length;**

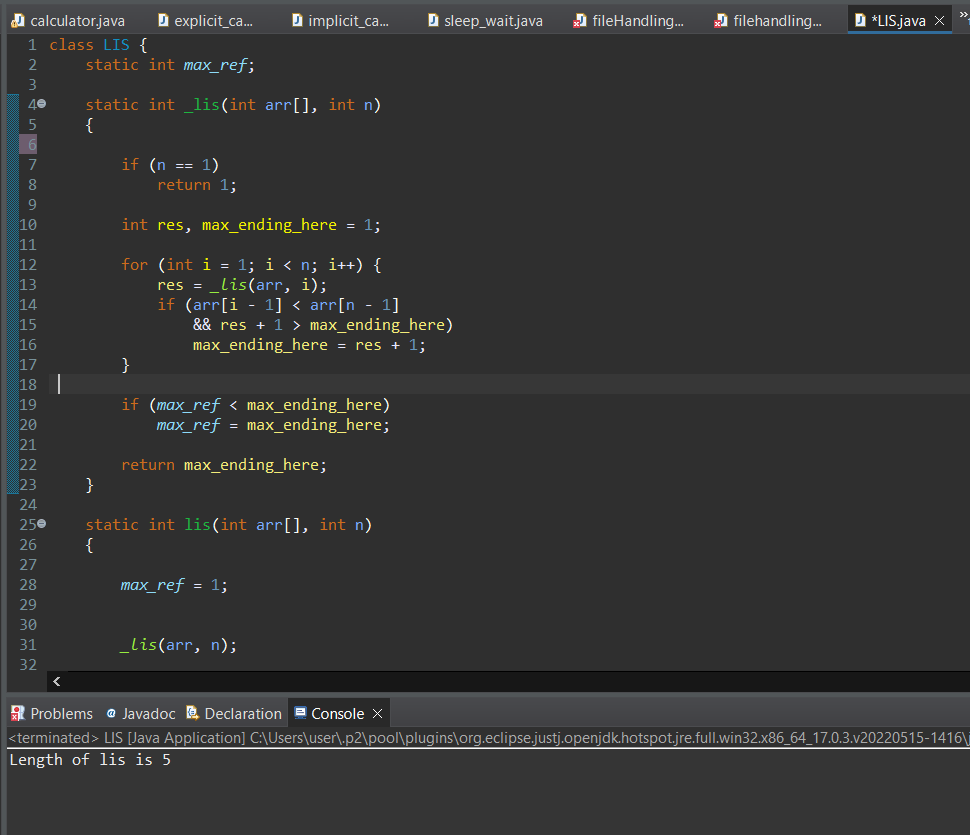
**System.out.println("Length of lis is " + lis(arr, n)**

**+ "\n");**

**}**

**}**

**Output:**

****